M. R. A. C. HAMATEUR CHATTER

Bulletin of the Milwaukee Radio Amateur's Club, Inc.
The World's Oldest Continuously Operating Radio Amateur Club.

Vol. 2 - No. 4 APR. 1951

BULLETIN

ED HANDY TO SPEAK ON APRIL 19

Francis E. (Ed) Handy, Communications Manager of the American Radio Relay, operator of station W1BDI at West Hartford, will be the guest of the Milwaukee Radio Amateurs Club this Thursday and will speak at the club meeting that night. A capacity audience of area amateurs is expected to greet the veteran QST staff member and hear his talk on amateur radio in civil defense.

Handy has been in Milwaukee many times, but one of his most notable visits was made in mid-1941 when another cold war was getting warmer. At that time he told club members that "short of a shooting war which touches our shores, amateur radio will continue as we know it." Of course, the shooting war came, and while it didn't "touch our shores" as such, we had our last fling at the ham kilocycles on Dec. 7.

It is trusted that his visit in 1951, almost a decade later, will not be as ominous.

CAR LICENSE PLATES WITH YOUR HAM CALL

Big news for Wisconsin's 1,500 licensed radio amateurs will be made in Madison within the next fortnight -- or possibly by the time this issue of Hamateur Chatter reaches your mail box.

After diligent labors by a few persistent hams in the state, the License Plate Bill #450 authorizing your call letters to be assigned to you as license plates for your automobile has been reported favorably out of committee and approved by the Assembly. It is now before a Senate committee and will probably be approved and thereupon acted upon affirmatively by the state Senate. It is expected that the bill will be signed into law by Gov. Kohler, also.

The special license plates, now in vogue in several states, will serve as a marker to enable ready identification of mobile stations and operators. The bill has been actively lobbied through the legislature by a group of hams headed ably by Don DeWitt, W9JXY, of Oconto. Jack Doyle, Tom Gettelman, Joe Collins and Alderman George Ruger of the Milwaukee club also participated in hearings at the Capitol. They have

(Continued on Page 4)

SUBURBS TAKE THE LEAD IN DEFENSE RADIO SET-UPS

Three Milwaukee suburbs are showing the way with definite communications programs geared to the Civil Defense activity of the county. Other suburbs have plans in motion, while the city itself has not yet completed the final arrangements necessary to carry out point-to-point amateur radio contact between disaster units and local municipalities.

Shorewood, Whitefish Bay and Greendale have installed equipment and the emergency units, paid for and owned by individual amateurs, are operating regularly, working each other or on separate nets as training for the station personnel.

Jack Doyle, W9GPI, started the ball rolling in Shorewood, setting up the first station in the Shorewood Police and Fire Department building. Flanked by two antennas, one a center fed doublet eighty-five feet high and the other a unity coupled vertical sixty-five feet high, Doyle put in a Collins 32V-2 transmitter, furnishing 150 watts on CW and 125 watts on phone. The receiver is an HRO 7. Emergency power for the Shorewood station is handled by a two and a half kilowatt, 60 cycle, 115 volt gasoline driven motor generator. The group headed by W9GPI consists of W9DR, chief operator; W9WIH, W9EBJ, W9LCD, W9AMB, W9VD, W9TFD, W9HWO, W9TQ. The station operates with the call W9IH, which was originally issued to Bob Guthrie, the first graduate of the Shorewood High School amateur radio club. Bob died in Hawaii during the war while on a radar mission for RCA. He was attached to the Navy.

As a sidelight to the activity in Shorewood, Doyle reports that three of the village aldermen are studying for their novice tickets and they along with the police chief have put communications receivers in their homes.

The station call in Whitefish Bay is W9MSW, under the direction of Gil Hutchinson, W9FTY. Hutch is assisted by W9GIL, W9LIC, W9LFP, W9SO and W9NKK. The Bay also uses the conventional Collins 32V-2 transmitter but has installed a NC 183 receiver. The antenna is the same unity coupled vertical as in Shorewood, but unlike the more active station in the suburb to the south which reports in on several local and national nets, the Whitefish Bay unit has been working only ten meter stations, both mobile and fixed.

Lynn Lewis, W9UH, holds down the anchor in the far southwest suburb of Greendale. Not by accident, but by design, W9UH also uses a 32V-2. The purpose in the three station set-up of duplication of equipment is obvious. In the event of emergency, substitution of component parts is greatly simplified as well as the overall coverage and operation. Lynn has added a Collins 75 A receiver to his equipment lay out, set up in the Greendale Town Hall. The Whitefish Bay station is installed in the Fire and Police building there, too. Dell Lingen, a station operator for WMAW, holding the call W9MBO, and Cliff Lee, who will soon be a licensed amateur, assist W9UH.

While Milwaukee has lagged by comparison with the suburbs, the highly organized mobile section of the MRAC is capable of filling in until such time as a base station is in operation. It is reported that more

(Continued on Page 3)

RADIO PARTS CO.

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MILWAUKEE 3, WISC.

1. Eldico Items:

   A. Antennascope. . . . . 29.95 Net
   B. Harmonic Chaser . . . . . 10.98 Net
   C. Low Pass Filters Wired & Tested . . . . . 12.99 Net
   D. Low Pass Filter Kits. . . . . 9.99 Net
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   F. 2 Meter Superhet RCVR Kits. . . . . 59.95 Net

2. National SW 54 Receiver. . . . . 49.95 Net

3. Hallicrafters SX 71 Receiver . . . . . 199.50 Net

4. Morrow Model 2 BC Mobile Converters, ... 49.95 Net

FLASH

AS ADVERTISED IN GE HAM NEWS

Eldico's New Single Sideband XMTR - XCTR

Model SSB Jr. -- Complete Kit. . . . . 69.95 Net

Model SSB Jr. -- Wired & Tested. . . . . 99.95 Net

For more dope on this SSB Jr.
see your January issue of QST

73's

Ernie - W9QUN

M R A C

HAMATEUR CHATTER

Published periodically by the Milwaukee Radio Amateur's Club, Inc. in the interest of the membership and amateur radio.

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W9ANA -- 31 YEARS IN HAM RADIO

This is the story about another member of the "old guard" -- old in years of service to ham radio in Milwaukee, but still as enthusiastic as that day in 1920 that he thrilled to his first 200 meter CQ.

Louie Wollaeger, W9ANA, is quite a guy! It's hard -- even after personal knowledge that extends beyond a decade -- to figure out after talking to him what his foremost extra-curricular love is. Amateur radio as such of course is important. But look at his record of service to the Milwaukee Radio Amateurs' Club since he joined in 1921. Even a casual member will note that a meeting never falls flat when the chairman calls on Louie to take over the program. His subjects range from technical talks on every electronic subject to a discussion on gliders, another of his hobbies. And this year he is ably serving as vice-president again. "It's the third or fourth time," he says. He has been a member of the club's board more than a dozen times.

When he was 14 years old, Louie's spark coil, Murdoch loose coupler, and De Forrest Crystal detector made a fine record on "the band". A year later he uncorked a UV22 five watter and a home made three circuit tuner receiver. By this time he, along with such other old time club members as W9VD, were working stations all over the midwest. He later added a half-kilowatt spark outfit that was his pride and joy. This old time equipment is still on hand and will make fine museum pieces as it is preserved for posterity.

Louie left for Madison and the university in 1924. Still a ham at heart, notwithstanding the tough "EE" course, he used to come home on week-ends to grind out the contacts. Fred Catel, W9DTK, often remarked, "Louie's home, I just heard W9ANA."

In 1930 W9ANA began to get some competition from flying. Louie started to fly airplanes and gliders. It all led to his job as a glider instructor in Texas during the early days of the war. Later he received a Navy reserve commission where he served as a radar and electronics officer in the Southwest Pacific. In the interim he and Tommy Gettelman's brother Fred took time out to travel to Singapore on a Norwegian freighter. They took a portable transmitter and receiver along, but in the six months they tried they worked everything except Milwaukee.

(Continued on Page 4)

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been receiving a helping hand from W9HHR, Lou Russell, of Madison, who coincidentally works in the Motor Vehicle Department license division. Reno Goetsch, W9RQM, the SCM, also has assisted.

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(Continued from Page 3)

W9ANA is active on all bands today, including mobile and the home station. He is a sales engineer for the Wadhams Oil Company.

HEAR YE! HARK THE FESTIVE BOARD

A large delegation of MRAC members and the Emergency Corps group will trek to Wausau this week-end to attend the Wisconsin Valley Radio Association annual ham banquet. The affair will get under way Saturday night at six o'clock and will be staged in the Youth Building at Marathon Park. Ed Handy of the ARRL staff will be the featured speaker at the dinner, and the usual quota of fine prizes will be available to the lucky ticket holders. The tariff is $2.75.

FIELD DAY -- 1951

Travis Baird, W9VQD, is lining up his first team for the top-notch effort to be extended by the MRAC in the ARRL Field day scheduled for late June. The Club's mobile transmitter will be completely installed by kick-off time. Using the call W9HRM, Baird and the rest of the committee will set up the equipment at a point to be decided in the near future. There will be no trees in the area and the most extreme conditions will be simulated. Ray Thompson, W9IRZ, will handle 80CW; John Koehler, W0DGV, is in charge of 20CW; Al Reed, W9LIU, is scheduled for 40CW; Baird is down for 80Fone, and Gene Wille, W9EKU, is making plans for 10-20Fone. Call Travis if you want to extend a helping hand.

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Nearly one-half of present amateur licenses expire during 1951. Check the expiration date on yours now and arrange to apply for renewal sometime in the 120 days preceding expiration date. See the story on regulations in March QST for revised renewal requirements.

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Emil Felber is looking for two used receivers or a convertor which covers the ten meter band. These items are for an invalid, a prospective ham.

HERE are the reasons more amateurs and industrial users are switching to

NEWARK ELECTRIC COMPANY

NEWARK QUALITY..... Newark carries the world's largest stocks of electronics equipment--all products of nationally-known, completely dependable manufacturers.

NEWARK VALUE..... Newark saves you most by offering the finest radio and television equipment at the lowest prices anywhere. Your dollar buys more at Newark!

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NEWARK TECHNICAL ADVICE.. Newark has a large staff of long-time Amateurs and radio service-men to help you with your problems. Call on Joe Sheffer (W9KLQ), head of our Amateur Division, if you've got a really tough problem, or can't make up your mind about what equipment to buy.

NEWARK

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323 W. MADISON ST
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Newark's Bargain Flyers offer the best buys in radio and television equipment anywhere. Make certain of receiving every one of these money-savers by dropping a card to Newark Electric, Dept. S-111. You'll also receive our big 164-page catalog (now in preparation) as soon as it's off the presses.

MOBILE HAMS

Complete mobile package--nothing else to buy. Outstanding mobile signals use motorola equipment--backed by years of communication equipment experience--World's largest producer of 2-way mobile equipment.

A mobile transmitter with a double feature FM or AM at flip of the switch, the MOTOROLA FMT-30-DMS (27-30 MC.). $130.00

MOTOROLA P-69-13 or 18-ARS receiver with special noise limiter for use with any converter having 1440-3000 KC. $60.00

P-7253 spring base rear-mount antenna $24.75

New Gon-set Tri-Band Spread Converter.... $47.60

3-30 famous Gon-set converter complete to connect to the P-69-13 or 18-ARS receiver. $39.95

P-327-E Fire wall loud speaker.... $5.00

The above comes complete with all necessary accessories and mounting hardware. Order direct or through the Motorola National Service Organization member in your area.

NOTE: This Receiver and Transmitter is equipment which has been returned from the field, modified and rebuilt for Amateur Service.

For further information write to:

MOTOROLA INC.

Amateur Sales Dept.
1327 W. Washington Blvd. Chicago 7, Illinois
Attention: Harry Harrison, W9LLX, Tel. Taylor 9-2200 Ext. 161

Sell or Swap

RME HF 10/20 Converter.....$59.00
Miller R 9'er.....$17.00
BC 453 - Q5'er.....$13.00

Doug Pavek, W9FDX
4669 N. 18th St.

Club members take advantage of this space. This section reserved for the selling or trading of your equipment.

(Continued from Page 2)

and more Milwaukee amateurs are adding mobile stations to their planned activity, and the mobile radio truck of the club to be used as a base station should be ready for initial tests within 60 days.

ADVICE FROM AN EXPERT

Doug Pavek, that well known ham about the outsized QSL card, offers a top-notch suggestion to those ten meter regulars planning to fill in this summer's slow time by working the dozens of mobiles that will be about. W9FDX says that he has found that his four element beam is as good as they come, but a simple dipole installed vertically enables him to work mobiles with their vertical whips at a gain of two to three "S" marks, both as concerns receiving and transmitting. The Whitefish Bay and Shorewood emergency stations have installed verticals which are described elsewhere in this issue and during test drills the mobiles are racked up all over town with little trouble.

EMERGENCY NET SCHEDULES

Two Meters - 7:00 PM Mondays
Ten Meters - 8:00 PM Mondays
Ten Meter Mobile - 9:15 PM Mondays

WTMJ-TV TOUR ARRANGED

The Journal has again offered its facilities at Radio City to the club for a regular meeting. The night of April 26 has been designated as MRAC night, and Phil B. Laeser, Manager of Radio and Television Engineering for WTMJ will give a talk. He will be assisted by six of his TV engineers as he outlines the latest technical advances made in the field. There will be a conducted tour through the newly remodeled Capitol Drive plant after the meeting.

ZOLIN MAKES TV DEBUT

Every little bit of publicity helps, and no matter what they say about you, as long as they spell the name right, the more publicity the better. So it was no chance meeting that brought W9ONY to the Ron-de-voo Ball Room the other night during the wrestling intermission. He was interviewed by Bob Heiss and club members attending the regular Thursday night meeting had a chance to witness the affair when Louie Wollaeger brought a portable TV receiver to the Museum. Zolin tickled the boys by suggesting that anybody interested in participating in ham mobile emergency work should contact W9SNK, Charlie Kaetel, at Radio Station WISN. And all this on WTMJ! But Bob Heiss has a sense of humor, particularly with Tom Gettelman, W9IZO, being the client!

QSP MILWAUKEE TO KOREA AND BACK

While it may be an every day occurence to active amateurs to handle messages to all points of the globe, to the general public the story of a ham getting a message to anxious parents whose sons are fighting in distant parts of the world is a real point of interest. The Journal saw it that way recently when they featured more than a column on the operation of the Badger Emergency Net, the Transcontinental Phone Net and other CW webs. A fine picture of Geo. Halper, W9SUF of West Allis, vividly described the story as he showed his operating procedures to Pfc. Larry Stenz, one of the returned Korean veterans whose messages were handled. Jack Doyle and Jim Douglas of Shorewood also came in for a share of mention in the account.

TEEN AGE HAMS ACTIVE

Dick Soref, 14, and Johnny Moriarily, 15, are two of Milwaukee's youngest amateur radio operators. Dick has the call W9LIC and John has been assigned W9LFP. Both are assisting Gil Hutchinson in the Whitefish Bay civil defense effort. They received a fine baptism in what activity in ham radio can do for them when a Milwaukee Sentinel photographer took their picture recently and gave it a two column story on how "high school students stay up all night searching for DX while maintaining 'A' high school averages." There was a time when Pop had to hide the rectifiers to get Junior to bone up for exams! Apparently those times have changed.

MORE SPACE ON "75"

The FCC has announced from Washington the authorization of fifty more kilocycles on the 75 meter phone band, moving south from the present limit of 3850 kilocycles to 3800. There was no mention made of the effective date. The additional space will undoubtedly do little to relieve the congestion on that popular band, but it will allow more stations to get on for the comparatively local phone contacts not possible frequently on ten or twenty meters and only limited on 160 meters. Before World War II, the phone men on 75 raised almost a continuous hue and cry for more breathing space on a band that was more than crowded even then. Post war reopening brought the first fifty kilocycles sliced from the CW portion, and it will take little effort on the part of most of the stations operating the band to move their ECO's the extra fifty. In other news from Washington, the commission also announced a new class of license, removing the "high" (13 wpm) code speed from the examination to allow a "novice" group of ham aspirants to join the ranks. No further details were given, but it is assumed that the new license will restrict operation to limited frequencies.

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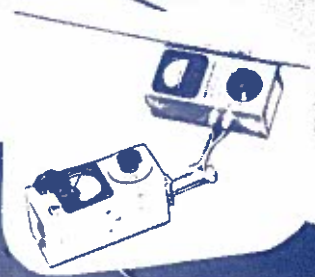
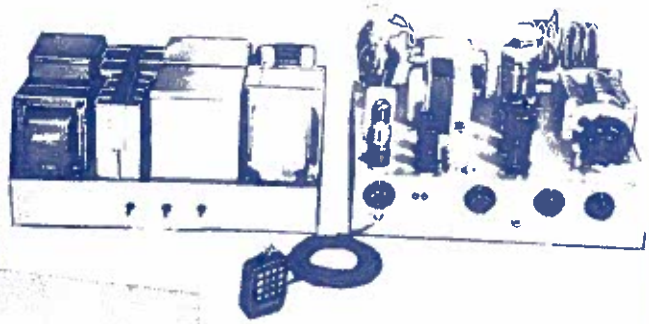
ALL AMATEURS are invited to attend MRAC Club meetings and join in club activities. Membership applications will be gladly furnished by any of the club officers or any club member. Meetings are held at 8:00 PM in the Conference Room 2nd floor of the Milwaukee Public Library every Thursday night.

CATALOG-'51





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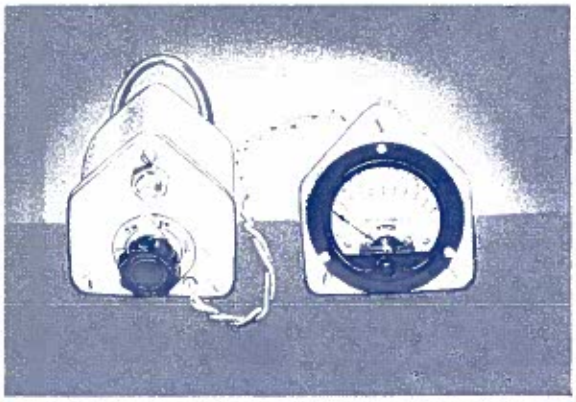
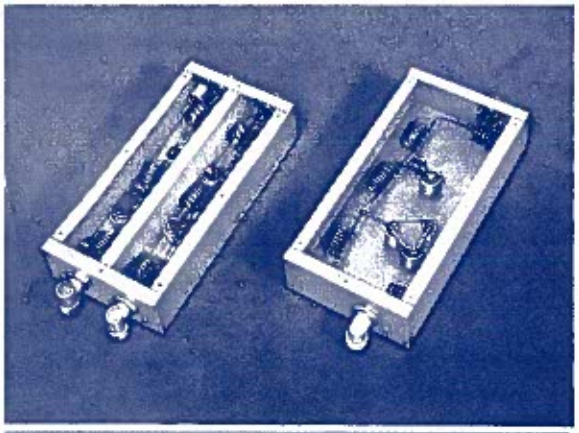
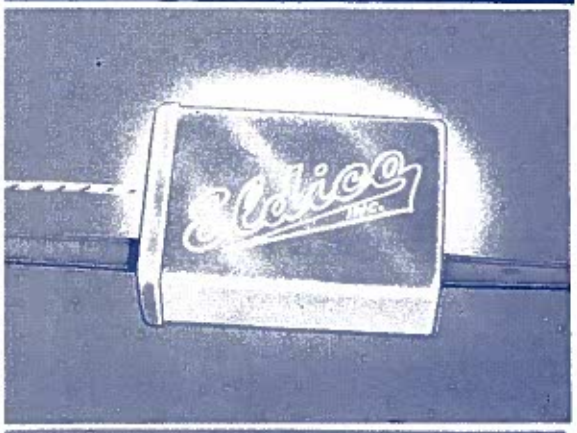
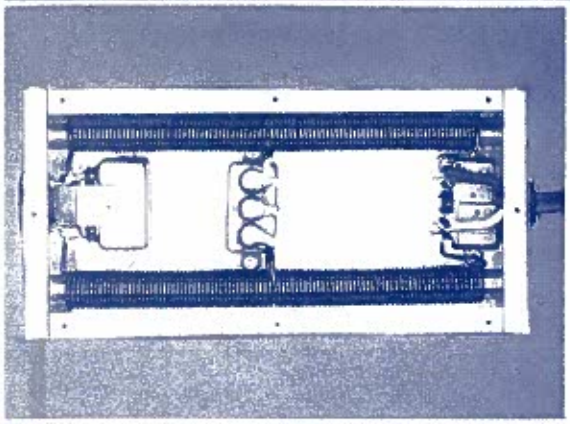
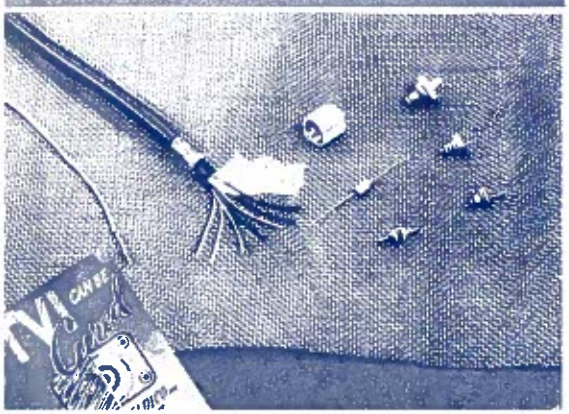










HARMONIC CHASER.

Modified absorption type wave-meter for locating, measuring and identifying transmitter harmonics falling in any of the 12 television channels. Designed to eliminate swamping by the transmitter fundamental when the unit is tuned to the harmonic. Complete with all parts except indicating meter. Requires a sensitive external current indicator. Can be used with most volt-ohmmeters or with the 500 microampere meter listed below. Size: 3 x 3 x 4".

TVH, complete kit, with instructions **$6.98**

TVH, wired and tested. Harmonic Chaser ready to operate.
Requires external indicating meter **10.98**

TVH 500 microampere meter in case to match Harmonic Chaser.
Size: 3 x 3 x 2½" **7.50**

LOW-PASS FILTERS.

Eldico's TVD-62 is a two-section M-serviced low-pass filter completely self-contained in a special case measuring 9½" x 4¾" x 2⅛", supplied with coaxial connectors for the input and output. Attenuation of harmonics radiated by the antenna, the source of most TVI, is in excess of 60 db. Cut-off frequency of 40 mc insures maximum performance to 10 meters. Each filter includes six 50-uuf ceramic condensers; pre-wound and formed coils, shielded case and all necessary fittings. The TVD-62 is installed directly between the link output of the final and the antenna or tuner. For stubborn cases of TVI in high-power rigs an additional filter should be installed between driver and final grids. Filter will handle up to 1 kw AM. Insertion loss negligible. For 52 or 72-ohm coaxial feedlines or coaxial feed to antenna tuner.

TVD-62, complete kit with instructions ..... **$ 9.99**
TVD-62, wired and tested **12.99**

DIAXIAL LOW-PASS FILTERS.

To fill the requirements of amateurs using parallel 52-ohm or 72-ohm coaxial feedlines the Diaxial Low-Pass Filter is a modification of the TVD-62. Consist of two TVD-62 filters paralleled in a single case with a nominal impedance of 100 ohms. All parts and instructions included. Supplied with four standard coaxial connectors for input and output and shielded case.

TVD-104, complete kit with instructions **$16.95**
TVD-104, wired and tested **19.95**

HIGH-PASS FILTERS.

For television interference reduction. Essential filters to be installed directly at the antenna coil of the television receiver. Greatly reduces or completely eliminates r-f interference from amateur or commercial transmitters, industrial equipment, diathermy, oscillator radiation and other sources. Negligible insertion loss. Efficient on any television receiver. 40-mc cut-off, no attenuation to signals above 40 mc, consequently does not affect picture strength or quality. Available for coaxial or 300-ohm twin-lead transmission line. Can be assembled from kit in a few minutes.

Size: 2¾ x 1¾ x 1".

TVR-300, 300-ohm high-pass filter.
TVR-62, coaxial high-pass filter for 52 or 72 ohms. Either Model **$1.98**
Wired and tested. High-pass receiver filter ready to install with complete instructions for connecting.
TVR-300, 300-ohm high-pass filter.
TVR-62, coaxial high-pass filter for 52 or 72 ohms. Either model **$3.98**

BRUTE FORCE LINE FILTER.

R.F. feeding back through power lines is a serious source of TVI and BCI. Eldico's two-section Brute Force Line Filter will completely eliminate r.f. feed through in an a.c. line, requires only minimum installation. Patterned after the recommended model in the 1949 ARRL Handbook each filter consists of two special coils (3/16" square copper in TVL-2.5/7 W) pre-formed and wound; 5 oil filled capacitors and 3 mica capacitors, all rated at 400 v.d.c. Metal case measures 4¾" x 9½" x 2⅛". TVL-1KW supplied with heavy duty line cord and plug and female a.c. outlet receptacle. TVL-2.5KW equipped with BX clamps for securing a.c. lines. Complete with instructions.

TVL-1KW, for total maximum line drain of 1 kw. In kit form ..... **$ 7.98**
Wired and tested..... **10.98**
TVL-2.5KW, for total maximum line drain of 2.5 kw: In kit form **$13.98**
Wired and tested..... **19.98**

R.F. SHIELDING—COPPER MESH

Heavy duty—tightly wound, far more effective than ordinary copper screen. Minimum order—6 Sq. Ft. 36" wide. Per Sq. Ft. $.85 plus $.50 shipping charge regardless of quantity.

SHIELDED CABLE—MULTICONDUCTOR

To reduce direct radiation, Bypass and shield all leads. (A.C. Line, Filaments, Bias, Power, and r.f.) 1, 2, 3, and 9 conductor shielded cable available. No. 20 wire—600-1000 V. Insulation.

Shielded Cable—1 conductor	.05 per ft.	$ 4.00 per 100 ft.
Shielded Cable—2 conductor	.08 per ft.	$ 7.00 per 100 ft.
Shielded Cable—3 conductor	.09 per ft.	$ 8.00 per 100 ft.
Shielded Cable—9 conductor	.20 per ft.	$17.00 per 100 ft.

R.F. BY-PASSING

Here are the bypasses that really trap the unwanted r.f. All a.c. leads, power leads, relay and switch leads and every connection between chassis should be bypassed. Use our high-voltage ceramic for high voltage; our button or feed thru's for medium and low voltages; our micas for a.c.

HI-VOLTAGE CENTRALAB

7500 V. working—50 MMFD. Tapped for 6/32 screws—the best for r.f. bypassing..$1.29 ea.

BUTTON CONDENSERS

Available in various ranges and capacities. Automatically grounded through mounting screws.

40, 100, 180, 500 MMFDS 500 V.	$.21 each $2.25 per dozen
2400 MMFD 600 V.	$.29 each $3.00 per dozen
2000 MFD 1250 V.	$.49 each $5.00 per dozen

FEED THRU CONDENSERS

Just insert a hole in chassis, tighten nut and you have a feed through connection which is automatically bypassed to ground.

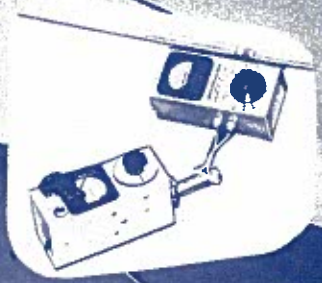
Available in 50 MMF capacity; with locking nuts ..... $.21 each $2.25 per dozen

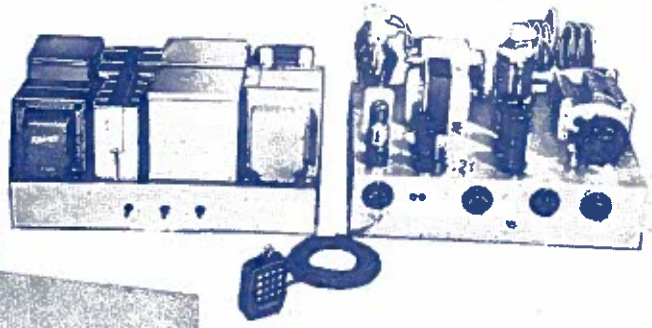
Ceramicon Condensers—Axial type—Temperature compensated.

Ideal for use in small spaces.

Available in 3, 5, 15, 25, 50, 100 and 300 MMFD ..... $.18 each $2.00 per dozen

CATALOG-'51





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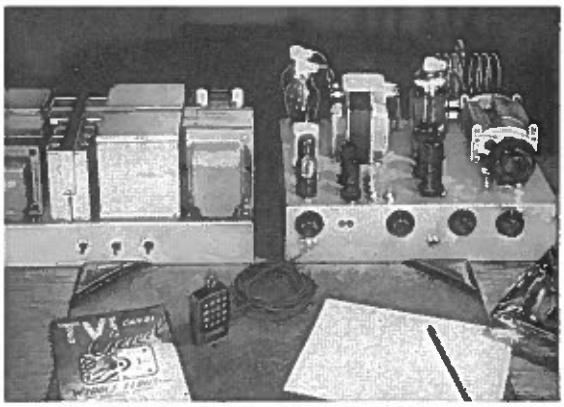


TR-1 TRANSMITTER.

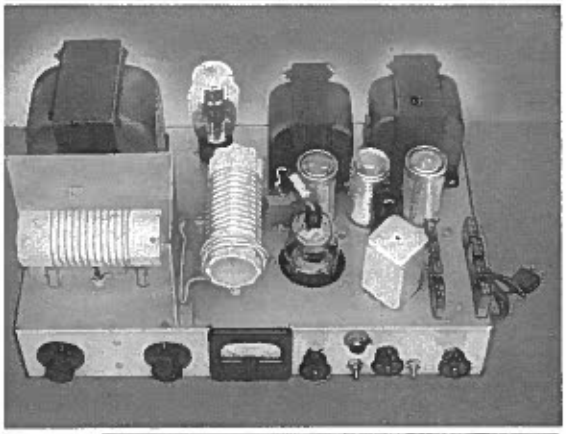
300-watt c.w. — 250-watt AM Phone. An outstanding all-band transmitter constructed from conservatively designed circuits built around components that loaf at rated power. The lineup consists of a 6V6 crystal-oscillator; 6V6 frequency doubler; 6L6 buffer-amplifier; 813 power amplifier. A 6L6 keyer tube provides clean, clickless electronic keying. For phone a 6SL7GT high-gain input into a 6V6GT drives 811s. Features of Eldico's TR-1 include broad-band r.f. driver circuits; band-switching in all stages except the power amplifier; metering of all important circuits through use of meter switching; rust-proof plated chassis; detailed instructions; all miscellaneous parts; power supplies on separate chassis; 5U4G medium-voltage rectifier; 866A high-voltage rectifiers. All components and tubes carry standard manufacturers warranty.

TR-1, complete kit with instructions **$199.95**

TR-75 TRANSMITTER.

A 75-watt rig designed for the c.w. man. Hundreds of these transmitters have given world-wide performance. Simple enough for the beginner to assemble, sturdy enough for years of trouble-free operation. Uses the time proven crystal oscillator final amplifier combination. Circuit permits use of 80 meter or 40-meter crystals to cover all bands. Plug-in coils eliminate trick circuits. Husky power supply employing a 5U4G rectifier delivers 500 volts d.c. to the final. Pi-network output simplifies loading of transmitter with all types of antenna; ideal for multi-band operation. All stages are metered using a meter which can be switched to oscillator plate, final grid and final plate. A terminal strip is provided to connect a modulator if radiophone operation is desired at a latter date. Eldico's MD-40 class B 6L6 modulator is designed expressly as a companion unit. Over-all size with cover 17" x 10" x 9". Complete kit (less crystal) . . . not another bolt or wire to purchase, including a smartly styled shielded cabinet to minimize television interference. For 110-120 v, 50-60 cycles.

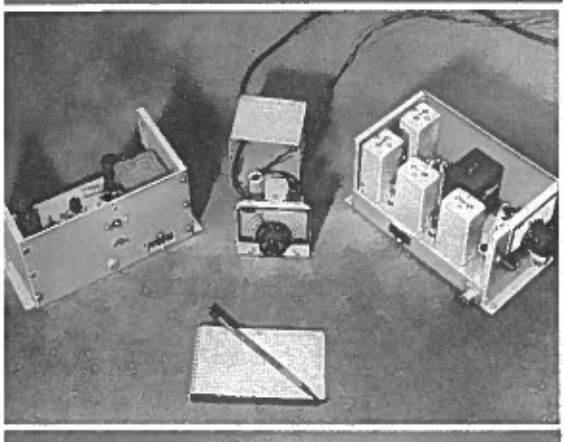
TR-75, complete kit with instructions **$44.95**



TR-75TV TVI-PROOF TRANSMITTER.

Identical in all respects to the TR-75 except that additional precautions have been taken to insure minimum interference to television. Special shielding and bypassing make this transmitter ideal for fringe-area operation or use in highly congested areas.

TR-75TV, complete kit with instructions **$59.95**



2-METER SUPERHET RECEIVER.

Designed for mobile or fixed station operation this kit is a complete 2-meter superhet tuning 144-148 mc with a sensitivity of better than 1 μv for 6 db signal-to-noise ratio. Using the Walman front end circuit and 9-mc i.f.'s, the a.v.c. and a.n.l. contribute to rock-steady stability and unmatched selectivity. The 10-tube circuit has a total battery drain of only 22 watts. 6AK5 r.f. stage; 6C4 cathode follower; 3 stages of 6BA6 i.f.; 6AL5 noise limiter; 6V6 audio output of 1 watt into 4 ohms; OA2 voltage regulator. For ease of tuning a geared vernier provides a velvet touch. The local oscillator is designed as an integral assembly. At a slight additional cost it can be purchased in a small external box for mounting in confined areas or where the feature of separate receiver tuning is wanted. Cabinet size is 5½" x 9½" x 5½" designed for universal mounting and finished in handsome hammertone baked enamel. Jones plug and coax connectors make installation rapid and positive. Standard components are used throughout should replacement of parts be necessary.

2-METER SUPERHET, complete kit with instructions **$59.95**

2-METER SUPERHET, wired and tested **$94.95**

For external local oscillator add $5.00 to above prices.

2-METER CRYSTAL CONTROLLED TRANSMITTER.

Crystal controlled transmitter designed for operation in the 144-148 mc band; 6AQ5 doublers; 5763 high-frequency pentode driving 2E26 final up to 22-watts input. 6C4 speech amplifier for carbon microphone input, driving 6V6 modulators. A modified pi network is provided for ease of coupling to any type 2-meter antenna. Low power plate drain is only 300 v., 100 to 200 ma depending upon plate loading. Coax output and integral antenna switching included. All tuning controls are screwdriver adjusted with positive locking to prevent detuning when used in mobile installations. Parts are conservatively rated to provide trouble-free performance. Layout and circuit design insures stable operation equal to standard low-frequency equipment. Cabinet size 5½" x 9½" x 5½" designed for universal mounting and finished in hammertone baked enamel. Jones plug and coax connectors make installation rapid and positive. Any power supply may be used capable of providing 300 volts at 200 ma. May be operated from dual vibrator supply also supplying receiver.

2-METER TRANSMITTER, complete kit with instructions **$49.95**

2-METER TRANSMITTER, wired and tested **$74.95**

SINGLE SIDEBAND TRANSMITTER-EXCITER.

The Eldico SSB Jr., patterned after the revolutionary unit developed by GE engineers is available in either kit form or completely wired and tested. Eldico's SSB Jr. is a complete 7-tube 5-watt single sideband transmitter. Tube complement consists of 12AU7 combination speech amplifier-oscillator; 12AT7 twin-channel amplifier; 6AG7 final; 12AT7 speech pre-amplifier; 6H6 bias; 5Y3-GT rectifier. Each kit comes complete with all parts, punched chassis, cabinet, tubes, power supply components and full instructions for assembly and operation. No more difficult to construct and adjust than any simple transmitter, because the audio phase-shift network is laboratory assembled and adjusted. Practical SSB at amazingly low cost is now a reality. The Eldico SSB Jr. may be used as a transmitter, as a driver for a high-power linear amplifier, or in conjunction with a v.f.o. The transmitter provides 40 db. sideband suppression by using a simplified phasing method which requires only standard components and no special technical skills or test equipment because of the built-up and adjusted phase-shift network. A preamplifier is included as an integral part of the Eldico SSB Jr. kit to enable the use of any low-level microphone such as crystal or dynamic.

SSB JR., complete kit with instructions **$69.95**

SSB JR., wired and tested **$99.95**

MD-100 MEDIUM POWER MODULATOR.

An unusually compact speech amplifier and modulator capable of delivering 100 to 120 watts maximum of AM audio for 100% plate modulation of any c.w. transmitter up to 250 watts input. Lineup consists of 6SJ7 resistance coupled to 6SN7 dual-voltage amplifier and phase invertor, driving a 6SN7 transformer coupled to a pair of modulators in class AB2. Modulation transformer is matched for a class C rf plate load of 3000 ohms. This complete package includes everything from a carefully punched and drilled chassis to an Electro Voice 915 crystal microphone. Plate voltage to the low-power speech stages and screen voltage for the modulator is supplied from an integral power supply. The Modulator plate voltage must be obtained from external supply. Size 17" x 11" x 3". For 110-120 v. 50-60 cycles.

MD-100, complete kit with instructions $49.95

SPEECH CLIPPER.

The effectiveness of any Eldico Modulator can be increased and the band width of the rf carrier reduced by the incorporation of a speech clipper. Mounting space and holes have been provided on the MD-100 and MD-40P chassis for incorporating the Electro Voice model 1000 speech clipper.

MODEL 1000 SPEECH CLIPPER, wired and tested $14.70

MD-40 LOW-POWER MODULATOR/SPEECH AMPLIFIER.

40 watts of audio, the MD-40 is a kit of the same superior parts that go into all Eldico products. The 6SJ7 drives a 6SN7 amplifier/phase inverter which in turn drives a 6SN7 driving a pair of 6L6G modulator tubes in Class AB2. The output transformer is matched from 6L6's to a Class C rf plate load of 6000 ohms. On special order, at no additional cost, a 500-ohm plate-to-line output transformer will be supplied making the MD-40 an ideal driver for a kilowatt modulator; complete with punched chassis, component parts, and the Electro Voice 915 High Level Crystal Microphone, less stand.

MD-40, complete kit including tubes and instructions $34.95

MD-40P, kit as specified, but including heavy duty power supply on same chassis. Conservative ratings make available an extra 400 v. at 200 ma. for supplying auxiliary apparatus around the station $44.95

ELECTRONIC BUG.

Self-completing type of automatic keying device incorporating all the latest improvements in automatic keying known to the art. Features self-completing characters that automatically insure perfectly formed sending; continuous variable speed control for any rate of sending from 8 to 50 w.p.m.; separate control for weight of characters and ratio of dashes-to-dot length, allowing individual tailoring to your own fist; self contained with built-in power supply in attractive black crackle portable case complete with automatic key.

Size:

EE-1, complete kit with instructions $24.95
EE-1, wired and tested 29.95
EE-2, complete kit including addition of integral keying monitor with speaker.... 29.95
EE-2, wired and tested with keying monitor 39.95

ALL BAND ANTENNA TUNER.

300-watt Universal antenna coupling designed to couple any conventional antenna feedline, regardless of impedance, to any conventional tank circuit. Tuner kit includes split sator capacitor, B & W TVL coils with swinging link, shielded case, 3" round ammeter, coax connector from transmitter, coax and open line connectors on output. Complete with coil for any one amateur band. Additional coils available.

ANTENNA TUNER, complete kit with instructions $21.95
ANTENNA TUNER, wired and tested $29.95

GRID DIPPER.

Based on the original grid-dip oscillator designed by W2AEF, the new model incorporates all the improvements to this basic instrument. High-sensitivity regeneration circuit is now standard part of kit. 2" Square O-1 ma meter improves readability of instrument. Special straight-line frequency capacitor is fully assembled with all mounting brackets and coil socket. Assembly time reduced substantially. The GDO is the instrument that enables you to locate resonant circuits for pre-tuning or de-bugging without applying power to the rig or receiver; measures harmonics; may be used as a signal generator; and performs numerous other measuring functions. Grid Dipper kit includes everything required, special case designed to facilitate one-hand operation, tube, internal power supply, meter and detailed instruction book covering assembly and operation. Range 3 mc to 250 mc, covered in six steps. Operation from 105-125 volts, 50-60 cycles a.c.

GDO, complete kit with instructions $29.50

ANTENNASCOPE.

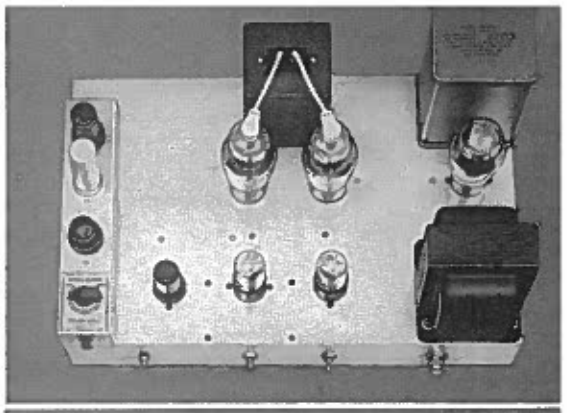
The instrument to give you Positive antenna performance and efficiency! The Antennascope is an impedance measuring meter used in conjunction with the Grid Dipper. With the Antennascope you can measure radiation resistance of your antenna; resonant frequency of your antenna; impedance of your transmission line; input impedance of your receiver; standing-wave ratio of your feedline. Each kit is absolutely complete with special hand-selected pots; O-100 ua microammeter; silk screened dial; drilled and fabricated case. Each kit includes detailed instructions.

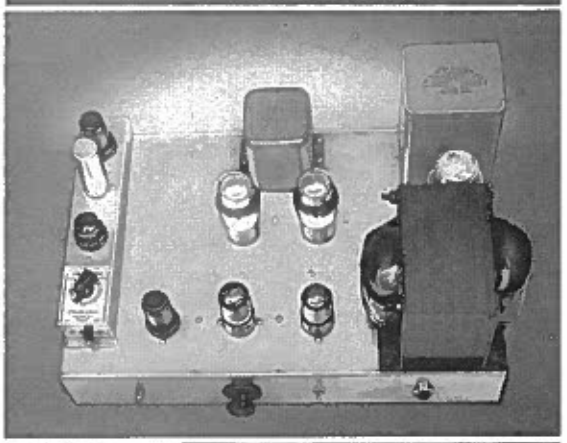
ANTENNASCOPE, complete kit with instructions $24.95
ANTENNASCOPE, wired and tested $29.95

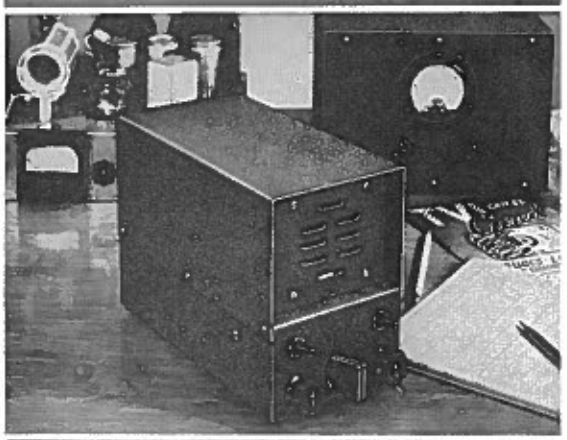
HIGH VOLTAGE POWER SUPPLY KITS.

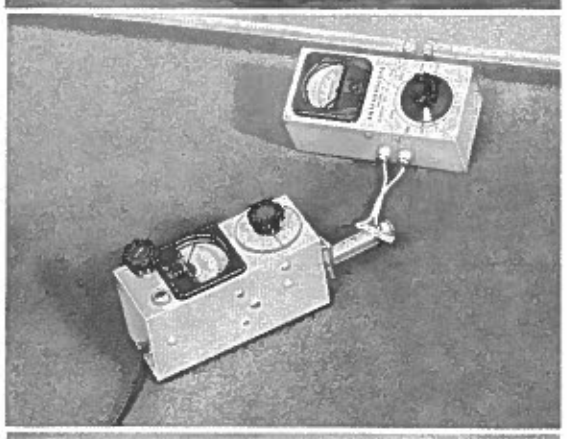
These kits use all standard brand new components and are conservatively rated to give dependable high voltage under continuous duty service. Because high-voltage supplies generally require little modification upon completion, these units are engineered to give trouble-free performance without attention from the day you solder the last connection. Each kit includes plate transformer, separate filament transformer, smoothing chokes, oil filled condensers, rectifier sockets. HV-1500 also includes line cord, pilot light, fuse, fuse post switch and etc. Each kit is supplied complete with instructions—less chassis and rectifier tubes. All Eldico High Voltage Power Supply Kits are for 110-120 v, 50 to 60 cycles ac. Total cost of each kit is comparable to what you would expect to pay for the plate transformer alone. 1500 volt supplied uses 866A's, all others use 872A's.

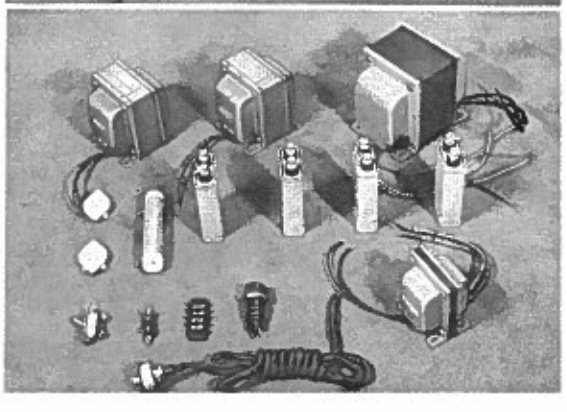
		COMPLETE KIT	TRANSFORMERS ONLY
HV-1500	**1500 v.d.c. 350 ma**	**$45.00**	**$24.95**
HV-2000	**2000 v.d.c. 500 ma**	**89.50**	**59.95**
HV-2000SP	**2000 v.d.c. 700 ma**	**109.50**	**79.95**
HV-2500	**2500 v.d.c. 500 ma**	**129.50**	**99.95**

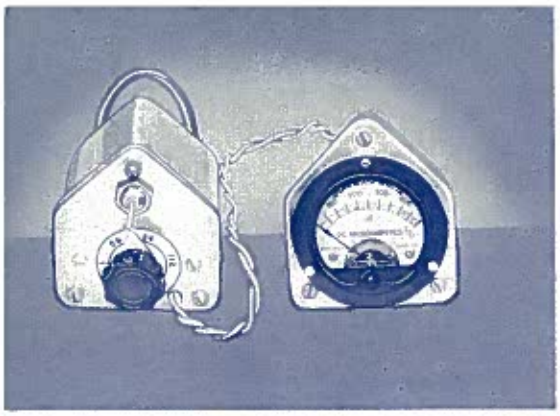


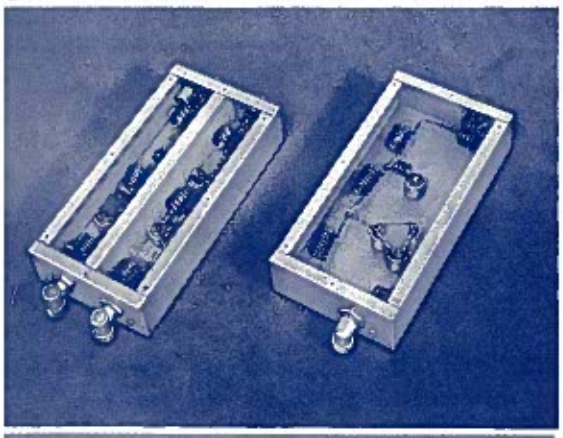


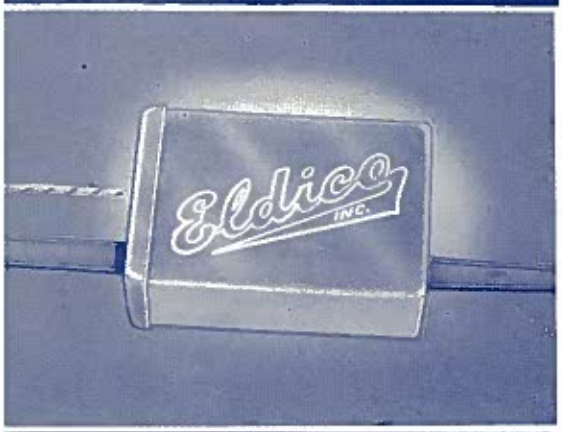


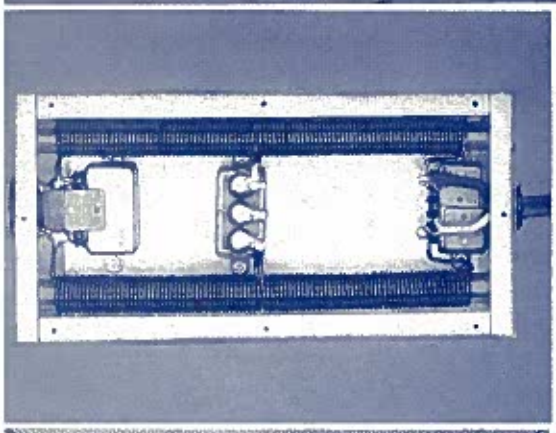


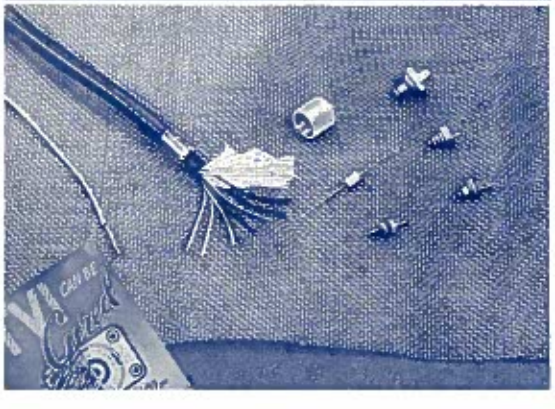












HARMONIC CHASER.

Modified absorption type wave-meter for locating, measuring and identifying transmitter harmonics falling in any of the 12 television channels. Designed to eliminate swamping by the transmitter fundamental when the unit is tuned to the harmonic. Complete with all parts except indicating meter. Requires a sensitive external current indicator. Can be used with most volt-ohmmeters or with the 500 microampere meter listed below. Size: 3 x 3 x 4".

TVH, complete kit, with instructions **$6.98**

TVH, wired and tested. Harmonic Chaser ready to operate. Requires external indicating meter **10.98**

TVH 500 microampere meter in case to match Harmonic Chaser. Size: 3 x 3 x 2½" **7.50**

LOW-PASS FILTERS.

Eldico's TVD-62 is a two-section M-serviced low-pass filter completely self-contained in a special case measuring 9½" x 4¾" x 2⅛", supplied with coaxial connectors for the input and output. Attenuation of harmonics radiated by the antenna, the source of most TVI, is in excess of 60 db. Cut-off frequency of 40 mc insures maximum performance to 10 meters. Each filter includes six 50-uuf ceramic condensers; pre-wound and formed coils, shielded case and all necessary fittings. The TVD-62 is installed directly between the link output of the final and the antenna or tuner. For stubborn cases of TVI in high-power rigs an additional filter should be installed between driver and final grids. Filter will handle up to 1 kw AM. Insertion loss negligible. For 52 or 72-ohm coaxial feedlines or coaxial feed to antenna tuner.

TVD-62, complete kit with instructions ..... **$ 9.99**

TVD-62, wired and tested **12.99**

DIAXIAL LOW-PASS FILTERS.

To fill the requirements of amateurs using parallel 52-ohm or 72-ohm coaxial feedlines the Diaxial Low-Pass Filter is a modification of the TVD-62. Consist of two TVD-62 filters paralleled in a single case with a nominal impedance of 100 ohms. All parts and instructions included. Supplied with four standard coaxial connectors for input and output and shielded case.

TVD-104, complete kit with instructions **$16.95**

TVD-104, wired and tested **19.95**

HIGH-PASS FILTERS.

For television interference reduction. Essential filters to be installed directly at the antenna coil of the television receiver. Greatly reduces or completely eliminates r-f interference from amateur or commercial transmitters, industrial equipment, diathermy, oscillator radiation and other sources. Negligible insertion loss. Efficient on any television receiver. 40-mc cut-off, no attenuation to signals above 40 mc, consequently does not affect picture strength or quality. Available for coaxial or 300-ohm twin-lead transmission line. Can be assembled from kit in a few minutes.

Size: 2¾ x 1¾ x 1".

TVR-300, 300-ohm high-pass filter.

TVR-62, coaxial high-pass filter for 52 or 72 ohms. Either Model **$1.98**

Wired and tested. High-pass receiver filter ready to install with complete instructions for connecting.

TVR-300, 300-ohm high-pass filter.

TVR-62, coaxial high-pass filter for 52 or 72 ohms. Either model **$3.98**

BRUTE FORCE LINE FILTER.

R.F. feeding back through power lines is a serious source of TVI and BCI. Eldico's two-section Brute Force Line Filter will completely eliminate r.f. feed through in an a.c. line, requires only minimum installation. Patterned after the recommended model in the 1949 ARRL Handbook each filter consists of two special coils (3/16" square copper in TVL-2.5/7 W) pre-formed and wound; 5 oil filled capacitors and 3 mica capacitors, all rated at 400 v.d.c. Metal case measures 4¾" x 9½" x 2⅛". TVL-1KW supplied with heavy duty line cord and plug and female a.c. outlet receptacle. TVL-2.5KW equipped with BX clamps for securing a.c. lines. Complete with instructions.

TVL-1KW, for total maximum line drain of 1 kw. In kit form ..... **$ 7.98**

Wired and tested. **10.98**

TVL-2.5KW, for total maximum line drain of 2.5 kw: In kit form **$13.98**

Wired and tested. **19.98**

R.F. SHIELDING—COPPER MESH

Heavy duty—tightly wound, far more effective than ordinary copper screen. Minimum order—6 Sq. Ft. 36" wide. Per Sq. Ft. $.85 plus $.50 shipping charge regardless of quantity.

SHIELDED CABLE—MULTICONDUCTOR

To reduce direct radiation, Bypass and shield all leads. (A.C. Line, Filaments, Bias, Power, and r.f.) 1, 2, 3, and 9 conductor shielded cable available. No. 20 wire—600-1000 V. Insulation.

Shielded Cable—1 conductor	.05 per ft.	$ 4.00 per 100 ft.
Shielded Cable—2 conductor	.08 per ft.	$ 7.00 per 100 ft.
Shielded Cable—3 conductor	.09 per ft.	$ 8.00 per 100 ft.
Shielded Cable—9 conductor	.20 per ft.	$17.00 per 100 ft.

R.F. BY-PASSING

Here are the bypasses that really trap the unwanted r.f. All a.c. leads, power leads, relay and switch leads and every connection between chassis should be bypassed. Use our high-voltage ceramic for high voltage; our button or feed thru's for medium and low voltages; our micas for a.c.

HI-VOLTAGE CENTRALAB

7500 V. working—50 MMFD. Tapped for 6/32 screws—the best for r.f. bypassing..$1.29 ea.

BUTTON CONDENSERS

Available in various ranges and capacities. Automatically grounded through mounting screws.

40, 100, 180, 500 MMFDS 500 V.	$.21 each	$2.25 per dozen
2400 MMFD 600 V.	$.29 each	$3.00 per dozen
2000 MFD 1250 V.	$.49 each	$5.00 per dozen

FEED THRU CONDENSERS

Just insert a hole in chassis, tighten nut and you have a feed through connection which is automatically bypassed to ground.

Available in 50 MMF capacity; with locking nuts ..... $.21 each $2.25 per dozen

Ceramicon Condensers—Axial type—Temperature compensated.

Ideal for use in small spaces.

Available in 3, 5, 15, 25, 50, 100 and 300 MMFD ..... $.18 each $2.00 per dozen